

APPENDIX A

Assessment of Outdoor Recreation in New Hampshire: A Summary Report

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Introduction

Outdoor recreation managers and planners in New Hampshire can enhance the effectiveness of resource management and development by monitoring the resource and facility demands of participants in a wide range of outdoor recreation activities. Participants in various outdoor recreation activities are diverse from the standpoint of requiring a variety of recreation opportunities in order to obtain the experience they desire. Community and outdoor recreation planners in New Hampshire also require participation forecasts to determine priorities for the management of existing properties/facilities and to guide the acquisition and development of new outdoor recreation facilities.

Managers and planners responsible for the management and development of New Hampshire's natural resources (e.g., lakes, rivers, forests, fish and wildlife, wetlands, etc.) need data on the probable level of outdoor recreation participation in order to determine and accommodate the impact of outdoor recreation on the respective resources. Given this type of data, managers and planners can institute the appropriate management resource management programs. These data can also be used to educate local, state and federal policy makers and the population of New Hampshire at large, so that budgets and the budgeting process properly reflect the importance of natural and cultural resources to the citizens of New Hampshire.

Public, private and non-profit providers of outdoor recreation opportunities require reliable data on individuals currently using New Hampshire's natural resources in order to effectively maintain and enhance those characteristics of the environmental setting, which are important components of the outdoor recreation experience. Unfortunately, very little is known about the behavioral, attitudinal and personal characteristics of persons who engage in a variety of outdoor recreation activities in New Hampshire and the relative importance of various environmental settings.

This type of data will also allow managers and planners to intelligently assess the needs of their clientele and to pinpoint management initiatives that will provide a high quality outdoor recreation experience and thereby enhance the "quality of life" for New Hampshire residents. For these reasons and others, a cooperative research agreement between the University of New Hampshire's Department of Resource Economics and Development and the New Hampshire Agriculture Experiment Station, with support from the New Hampshire Office of State Planning, and in cooperation with a variety of local, state and federal agencies and some non-profit organizations, was established to complete a detailed assessment of outdoor recreation in New Hampshire.

Study Objectives

The objective of this research was to collect information from a random sample of New Hampshire residents that will help improve the outdoor recreation and resource management programs in New Hampshire. More specifically, the project (1) characterized the resident participation in a wide range of outdoor recreation activities within the last year; (2) identified the natural and community resources that participants in specific outdoor recreation activities utilize; (3) identified the wide range of benefits participants in outdoor recreation activities experience; and (4) determined resident preferences for specific outdoor recreation management and development initiatives.

Survey Methods

The first step in the research design development process was to establish an advisory committee. All members of the Statewide Comprehensive Planning Advisory Committee were invited to attend a research planning meeting. Representatives from twelve agencies or organizations attended the meeting (an additional four reviewed a draft of the questionnaire). The resulting mail questionnaire was administered to a random sample of 3,000 households.

The sample of households was randomly drawn from a listing of persons licensed to drive in NH. Sixty-six percent of the questionnaires (n=2,000) were distributed via First Class mail. The other thirty-four percent of the questionnaires (n=1,000) were mailed via bulk mail. Both mailings included a postage paid pre-addressed envelope. As of April 30, 1998, 928 completed questionnaires (30.1%) were returned.

A check on response bias classified New Hampshire's 10 counties as being either urban/metro or rural/non-metro and compared the proportion of the population in the random sample and in each region of the state. Hillsborough, Merrimack, Rockingham, and Strafford counties, located in the southeastern portion of the state, includes 73 percent of the state population and 70 percent of the sample population (n=653). This region occupies 32 percent of the land. The average population per square mile of these four counties is 313.25. Belknap, Carroll, Cheshire, Coos, Grafton, and Sullivan counties represent 27 percent of the population and 30 percent of the sample population (n=253). The residents of this area occupy 68 percent of the land base of the state of New Hampshire while the average population per square mile for this 6 county region is 69.16. This crude measure of response bias suggests that the sample was slightly over-represents non-metro/rural counties and slightly under-represents of urban/rural counties. It is the opinion of the author that this data adequately represents the residents of the State of New Hampshire.

Profile of Survey Respondents

This section looks at the demographic characteristics of the survey respondents. Figures 1-2 look at the age and education level of the respondents. Table 1 provides additional demographic data on the survey respondents. Demographic data is collected to determine representativeness of the data collected. This demographic data can be compared to the statewide demographic characteristics of New Hampshire in order to determine how representative this data is of the state's population.

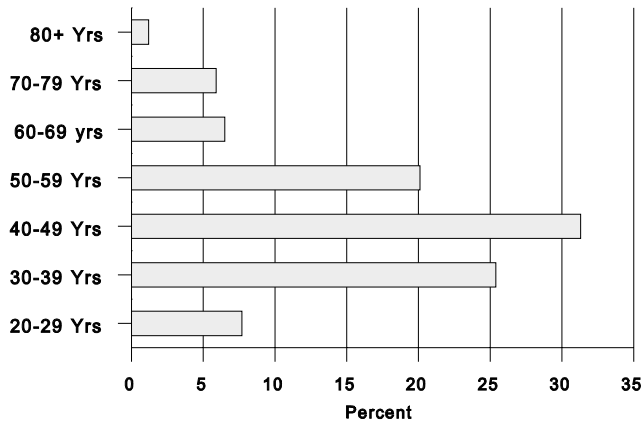


Figure 1: Age of Respondents

Of the surveys collected, male respondents held a slight majority (56.8%) over female (42.6%) respondents. The age of respondents varied between 20 years of age to those who were in their eighties. Respondents who were in their forties were the most common (31.3%). The highest level of education completed varied, with high school educations being the most prevalent (40.8%) followed by bachelor's degree recipients (22.5%). Nearly eighty percent of the respondents owned their own homes. Houses were the most common place of residence (78.1%). The majority owned between 1 and 5 acres of land (41.5%). Forty-six percent of the respondents have lived in New Hampshire for less than ten years.

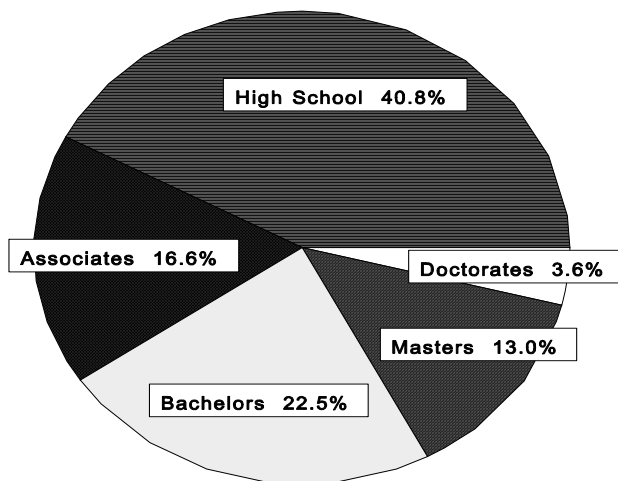


Figure 2: Highest level of education of survey respondent.

Demographic Characteristics of Respondents

* Home	
Own	79.9%
Rent	15.4%
* Type of Home	
House	78.1%
Apartment	10.1%
Mobile Home	8.3%
Condo	2.4%
* Acres of Land Owned	
0 - 0.9 acres	16.0%
1 - 4.9 acres	41.5%
5 - 14.9 acres	10.2%
15 + acres	8.7%
* Household Income (before taxes)	
\$0 - 25,000	7.8%
\$25,001 - 50,000	31.6%
\$50,001 - 100,000	30.9%
\$100,001 +	5.4%
* Years Lived in New Hampshire	
0 - 9 years	46.1%
10 - 19 years	26.1%
20 - 29 years	16.5%
30 + years	8.9%

Table 1: Demographic characteristics of respondents.

(1) Findings: Reasons for Participation

In this section of the survey, respondents were asked to rate fifteen reasons for participation in outdoor recreation activities based on importance. The ratings used were: a very important reason, important reason, minor reason, and not a reason. Table 2 presents the results from the survey. The most important reasons why respondents participate in outdoor recreation were to experience nature and to do something as a family.

Reasons for Participation

"Very Important" Reason	
• To enjoy and experience nature	45.0%
• To do something as a family	37.3%
"Important" Reason	
• To be with people with similar interests	56.8%
• To get exercise	52.7%
"Minor" Reason	
• To meet new people	45.6%
• To share knowledge and skills with others	43.8%
"Not a Reason"	
• To have thrills and/or dangerous situations	61.5%
• To meet new people	34.9%

Table 2: Reasons for participation in outdoor recreation.

(2) Findings: Management Objectives

In this section, respondents were asked how important it is to them that the persons who are responsible for management of New Hampshire's natural resources develop and maintain areas for the listed purposes. The respondents were asked to rate each of the ten purposes from most important down to not important. The most important management objective which was identified was the preservation and protection of drinking water and groundwater recharge areas (52.1%). Table 3 presents the results from the survey as collected.

Management Objectives

"Most Important" Objectives

- Preservation of drinking and groundwater recharge areas 52.1%
- Setting aside special natural areas from development 37.9%
- Protect typical examples of NH's natural regions 37.9%

"Very Important" Objectives

- Protect areas of historical/archaeological interest 47.3%
- Provide opportunities for non-motorized outdoor recreation activities 39.6%

"Important" Objectives

- Provide a source of revenue to owners and managers of natural/cultural resources 41.4%
- Provide opportunities for non-motorized outdoor recreation activities 34.9%

"Minor Importance" Objectives

- Provide opportunity of outdoor recreation activities which require a high degree of development 33.1%
- Provide opportunities for motorized outdoor recreation 27.2%

"Not Important" Objectives

- Provide opportunity of outdoor recreation activities which require a high degree of development 19.5%
- Provide opportunities for motorized outdoor recreation 19.5%

Table 3: Importance of management objectives.

(3) Findings: Outdoor Recreation Priorities

Respondents were asked to rate twenty-two different programs or projects on how they would decide where future monies are spent within New Hampshire. The programs/projects were given a high, moderate, or low priority rating when deciding how future monies should be distributed. Among the high priority programs or projects were preservation/restoration of native wildlife (58.6%) and wetland preservation/protection programs (37.4%). Table 4 looks at which programs or projects were given high, moderate, and a low priority rating.

Outdoor Recreation Programs or Projects Priorities

"High" Priority

- Preservation/restoration of native wildlife 58.6%
- Wetland preservation/protection programs 37.4%
- Enforcement of environmental laws 36.3%

"Moderate" Priority

- Improved maintenance of existing park facilities 55.6%
- Safety and law enforcement programs in outdoor recreation areas 55.6%
- Enhancement of fish and game stocks 55.6%

"Low" Priority

- Providing more facilities for outdoor recreation activities 63.9%
- Incentives to encourage provision of outdoor recreation opportunities on private timber lands 47.3%
- Marketing outdoor recreation opportunities to NH residents 46.7%

Table 4: Outdoor Recreation Programs or Projects ranked by priority.

(4) Findings: Top Three Priorities for New Hampshire State Government and Non-Profit Organizations

This section is a continuation of section three. In this part, respondents were asked to identify the top three priorities from the list of twenty-two programs or projects. Respondents were asked to identify the priorities for the New Hampshire state government along with the priorities for New Hampshire's non-profit organizations and foundations. The results are presented in Tables 5 and 6.

New Hampshire State Government Priorities	
Protection/improvement of water quality in rivers, streams, lakes and ponds	69.9%
Preservation/restoration of native wildlife	31.9%
Enforcement of environmental laws	23.7%

Table 5: Top three priorities of NH State Government as indicated by survey respondents.

Table 6: Top three priorities of non-profit organizations.

New Hampshire Non-Profit Organizations and Foundation Priorities	
Volunteer environmental monitoring programs	28.4%
Protection & enhancement of cultural and historic resources	23.7%
Acquisition of lands for conservation/open space and habitat protection	23.1%

(5) Findings: Recreational Activities-Participation

Fifty different outdoor recreation activities were identified and survey respondents were asked to indicate how often they or members of their household participate in each activity. However, fishing and hunting were not included on this list. Figures 3-5 illustrate the participation level of different activities. Figure 3 represents the most popular activities with respondents participating in the activity seven or more times a year. Figure 4 shows the activities in which a moderate level of participation is found, from one to six times a year the respondent participates. Figure 5 represents the least popular outdoor recreation activities as found by the survey.

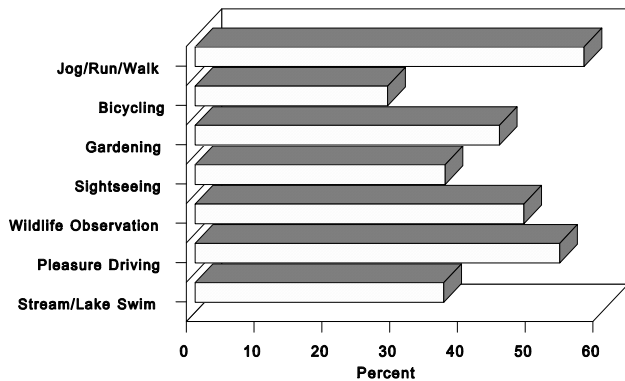


Figure 3: Activities with participation levels above 7 times a year.

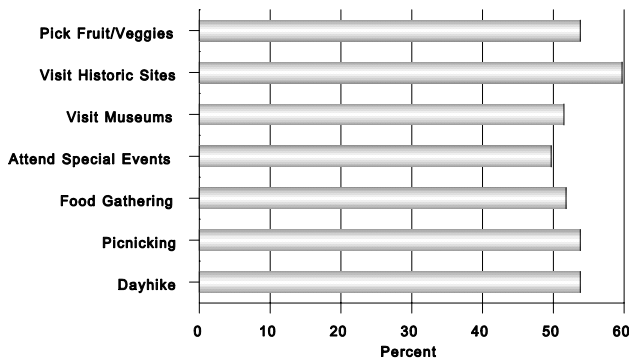


Figure 4: Activities with moderate participation level, 1 to 6 times a year.

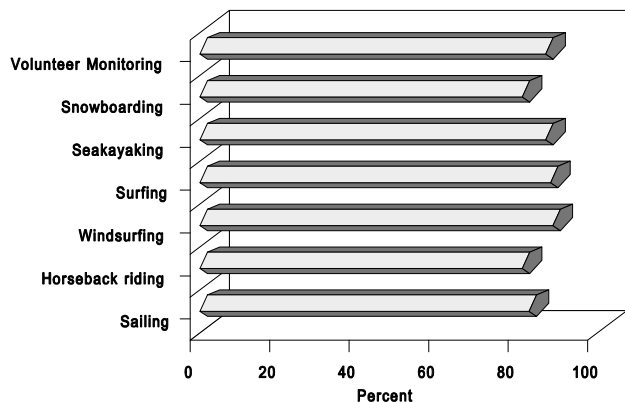


Figure 5: Activities in which respondents did not participate.

(5a) Findings: Top Three Favorite Activities

This section is a continuation of the previous section. Respondents were asked to identify their top three favorite activities from the given list of fifty outdoor recreation activities. The three activities that were identified were: wildlife observation (19.6%), jogging/running/walking (19.0%), and gardening (18.3%). These were the most common responses given.

(5b) Findings: Activities and Constraints

One-third of the survey respondents indicated that they experienced a constraint or constraints when it came to participating in outdoor recreation. Constraints can be classified as lack of time, money, skills, and/or equipment. Respondents were also asked which activities of the list of fifty they would like to participate in but can't due to a "constraint". The top three activities in which people would like to participate but are not able to are: downhill skiing (7.2%), sailing (5.4%), and camping at state parks (5.4%).

(6) Findings: Issues and Concerns

This section measured respondents agreement or disagreement with different issues and/or concerns with outdoor recreation. Thirteen issues/concerns were given and respondents were asked to rate each concern from strongly agree with to strongly disagree with the statement given. Table 7 presents the data obtained from the survey. For example, 86.4% agreed with the statement of "New Hampshire's scenic beauty and cultural heritage is important to me."

Issues and Concerns

"Agree" with Statements

- NH's scenic beauty and cultural heritage is important to me 86.4%
- All NH residents should have equal access to state/federal natural and cultural resources 83.5%
- Senior citizens should receive a discount to participate in specific outdoor recreation activities 80.1%

"Neutral" on Statements

- Private timber lands provide important recreation opportunities 41.4%
- Outdoor recreation areas are too crowded 40.2%
- Other states do not compare with NH for both the quantity and quality of outdoor recreation 40.2%

"Disagree" with Statements

- I would be willing to pay higher user fees if the increase would be dedicated to maintenance, acquisition, and development of recreation 26.7%
- Non-residents should be assessed a larger fee than residents to participate in specific outdoor recreation activities 24.3%
- Other states do not compare to NH for both quantity and quality of outdoor recreation 16.0%

Table 7: Agreement/non-agreement levels on issues concerning outdoor recreation in NH.

(7) Findings: Obtaining Information about Outdoor Recreation Opportunities in NH

This section of the survey asked respondents to identify through which medium do they obtain information about the outdoor recreational activities the state of New Hampshire has to offer. The top three ways in which residents learn of opportunities are through friends (76.9%), newspapers (70.4%), and brochures (55.6%). Figure 6 represents the percentages of respondents who utilize the following information sources in learning about recreational opportunities.

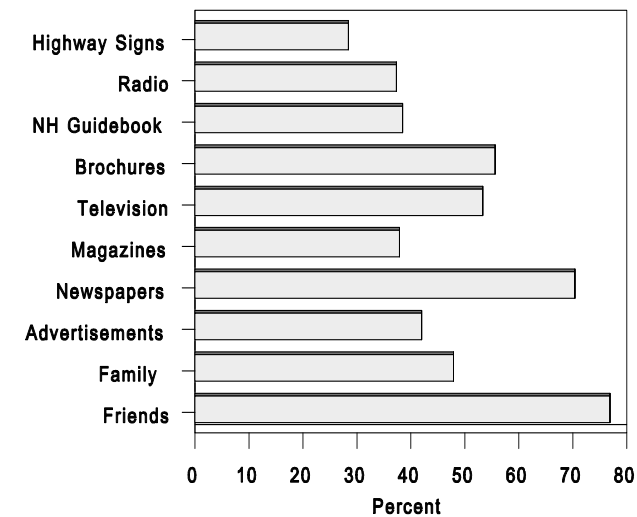


Figure 6: Percentage of respondents who utilize various sources to obtain information on outdoor recreation in NH.

(8) Findings: Outdoor Recreation Equipment

In this section of the survey, respondents were given a list of twenty different outdoor recreation equipment items in which respondents were asked whether they or a member of their household owns each item. Seven of the given items were owned by at least ten percent of the respondents. Figure 7 represents the data graphically. The most popular item to own was a tent.

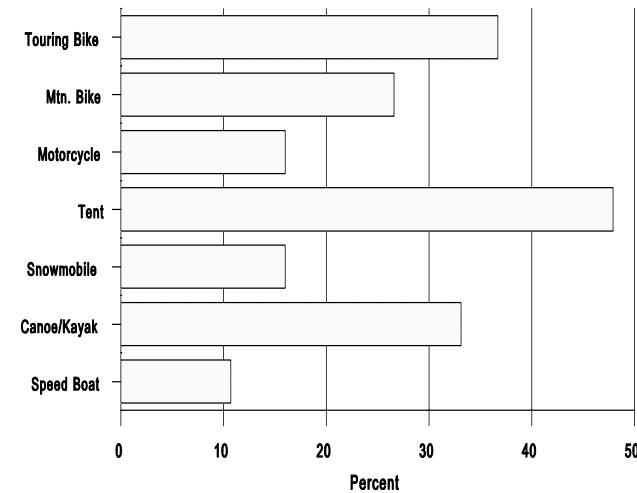


Figure 7: Ownership of outdoor equipment by percentages.

(9) Findings: Involvement in Outdoor Recreation and Related Activities in New Hampshire

In the last section of the survey, respondents were asked to indicate their involvement in outdoor recreation in New Hampshire through a series of ten statements. For example, “do you own or work for a business which depends on outdoor recreation?” Table 8 presents the results obtained from the survey, with the percentages equaling the number of respondents who agreed with the statement.

Involvement in Outdoor Recreation and Related Activities

- Own or rent a boat skip on a NH lake, river, ocean 7.1%
- Own or work in a business that depends on outdoor recreation 7.7%
- Own or rent a second home or condo in NH 10.1%
- Member of a voluntary historical preservation organization 7.7%
- Member of a non-motorized recreation club 5.9%
- Member of a lake association 5.3%
- Member of a fishing, hunting, or gun club 18.3%
- Member of voluntary conservation organization 10.7%
- Hold an elected or appointed office 7.7%
- Member of motorized recreation club 7.1%

Table 8: Percentage of respondents who agree with involvement in outdoor recreation and related activities statements.

Conclusions and Recommendations

This report was intended to provide baseline information for tracking trends in development and enhancement of outdoor recreation in New Hampshire. This research points to the importance of both nature and the family experience to those persons participating in outdoor recreation. The results also point to the importance of the protection of natural resources to the respondents of the survey and the importance of developing outdoor recreation opportunities that are sensitive to many natural and cultural resources of the State of New Hampshire.

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